II. REMARKS

Claim Rejections – 35 USC § 101

1.   The examiner rejected claims 1 to 9 because the claimed invention is directed to non-statutory subject matter. Applicant submits that independent claim 1 has been amended to overcome this rejection. Specifically, the amended claim includes a memory, a program stored in the memory, and the memory so configured by the program, causes the computer to perform the steps listed in the claim. Claims 2 to 9 are dependent on claim 1 and are allowable over this rejection for the same reason as claim 1.

Claim Rejections – 35 USC § 103(a)

2.   The examiner rejected claims 1-39 under 35 U.S.C. 103(a) as being unpatentable over Icetips Cowboy SQL Templates (Icetips Cowboy SQL Templates User's Guide, Version 6.0, February 20, 2003, hereafter "ICST") in view of Evans et al (US Pub 2004/0220917, hereafter "Evans"). Applicants respectfully traverse this rejection for the reasons that applicants gave in response to the Office Action of April 18, 2006 wherein these same references were applied and for the additional reasons set forth herein.

Applicants previously amended the independent claims to add the limitation of "automatically placing a clause into a query for a database so that query can only access necessary tables in the database." The examiner acknowledged at page 5 of the office action that ICST "does not explicitly disclose preventing inclusion of an unnecessary table join in the query." Evans is cited to overcome the deficiency of ICST. However, the examiner stated that the prior amendment did not preclude an unnecessary table join in the query because all query statements are "necessary" by definition. The applicants have further amended the independent

claims to clarify that only the necessary tables "in the database" will be joined "in the query" and that unnecessary table joins will not be included in the query. In other words, the applicants are able to automatically build a query that only joins necessary tables.

Applicants generate a SQL statement that joins tables from an "added alias list" of tables [0011], and analyzes each table within the "optional where clause table list" to determine if the table is necessary, and then adds the necessary table to an added alias list [0010]. The (join) WHERE clause string is based on the added alias list and not on a pre-defined template or drop down menu as in ICST. ICST inserts query clauses from its pre-determined templates, but it forces inner joins rather than preventing them [page 8, paragraph 3]. With applicants' embodiments, the execution of the resulting SQL statement can only access tables that are determined to be necessary for the user entries. Unnecessary joins are avoided. Applicants have amended the independent claims (claims 1, 10, 17, 25 and 32) to improve clarity.

Evans recognizes that unnecessary joins should be avoided. Evans accomplishes this goal by generating "a list of tables that are not referred to by a SQL statement but that are within its scope" [0016; 0035; Fig 2, step 1]. The resulting table represents a list of candidate tables that might be excluded from a join [0038]. A set of rules [0017; 0020 to 0023] are applied to each of these candidate tables in sequence [Fig 2, steps 2 and 9] to check if the table is actually required for the query [0017]. If the potentially excluded table is required, it is removed from the list of candidates for exclusion from the join [0017; Fig 2, step 8]. The pre-determined rules screen the exclusion table in various ways to filter the excluded joins that remain in the list [0020 to 0024]. This filtering process repeats for each excludable table in the master list created in step 1 until all of the candidate tables for exclusion have been screened [Fig 2, step 9] and either passed or removed from the exclusion list. After the last candidate for exclusion is screened and

either removed from the exclusion list or passed, the remaining tables on the exclusion list will be blocked from the execution of joins in the query [0018]. Evans thus filters an existing query to exclude unnecessary tables.

The applicants approach to preventing unnecessary table joins is essentially the opposite of Evans. Applicants pre-screen tables prior to automatically creating a query. Evans blocks an existing query from joining unnecessary tables that are already included in the pre-existing query. Applicants add only the necessary tables to a list of tables to join and then creates an SQL statement to access them. Applicants' (join) WHERE clause is linked to a list containing only necessary tables. Evans prevents a linkage by filtering a list of only unnecessary tables for the pre-existing SQL statement. Applicants add necessary tables to a list. Evans subtracts necessary tables from a list.

As noted above and stated by the examiner, ICST does not prevent the linkage of an SQL query to unnecessary tables. Evans does not teach or suggest a modification of ICST that would lead to the applicants' embodiment wherein the necessary tables are added to a list of tables to join.
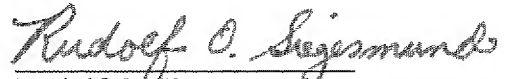
All of the independent claims (claim 1, 10, 17, 25 and 32) have been amended to further clarify the distinction between applicants' embodiments and ICST in combination with Evans. Accordingly, the pending claims 1 to 39 are believed to be in a condition for allowance.

In summary, applicant's query is automatically generated to preclude unnecessary joins. ICST and Evans, individually or together, cannot accomplish this because they take an existing query and then perform a process to keep the already existing query from joining unnecessary tables. But applicant creates a query that accomplishes this end through the automatically generated clause with a link to the automatically identified set of necessary tables.

Conclusion

3.   All of the independent claims (claim 1, 10, 17, 25 and 32) have been amended to further

clarify the distinction between applicants' embodiments and ICST in combination with Evans.

Accordingly, the pending claims 1 to 39 are believed to be in a condition for allowance.

Respectfully submitted,

Rudolf O. Siegesmund

Rudolf O. Siegesmund
Registration No. 37,720
Gordon & Rees LLP
Suite 2800
2100 Ross Avenue
Dallas, Texas 75201
214-231-4660
214-461-4053 (fax)
rsiegesmund@gordonrees.com